

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.22P.A**WELDING WITNESS REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WWR-000324**Date Inspected:** 19-Jun-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 800**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

Witness: **Procedure Qualification Record**
Welding **NDT**

Welder Qualification **Fracture Critical**
Mechanical Testing, describe:Fillet Weld Soundness
Macroetches

Index Lot #: B72-047-07**Witness Lot #:** B26-016-07**Bridge No:** 34-0006**Component:** Bid: 52,55 Tower & Girder**Welder:** Jin Rong**ID #:** N/A**Joint Description:** Fillet

N/A

WPS ID #: PWPS-B-T-2134

N/A

Base Metal: A709M Gr.50T2

N/A

PQR ID #: HP2007248

N/A

Thickness: 26 millimeters

N/A

Process: FCAW

N/A

Electrode Spec/Class: AWS 5.20/E71T-1

N/A

Positions: Overhead (4F)

N/A

Backing Material: N/A

N/A

CWI: Wei Huang

N/A

Average Amps:

N/A

AWS Code: AWS D1.5 2002

N/A

Average Volts:

N/A

Applicable Sec: Paragraph 5.13

N/A

Travel Speed:

N/A

Heat Input:

N/A

Preheat:

N/A

Summary of Items Observed:

ZPMC Fillet Weld Soundness Test for PQR HP2007248

The Caltrans QA Inspector observed that ABF representative Mr. Warren Buehler is present along with ZPMC representative Mr. Lu Jian Hua. The Caltrans QA Inspector observed that ZPMC has prepared the following specimens for testing as follows,

PQR HP2007248-Fillet Weld Soundness

The Caltrans QA Inspector observed two fillet weld soundness specimens that have been prepared for what appears to be a 10mm single pass fillet weld and also a 14-16mm multiple pass fillet weld. The initial observation of these specimens is performed by Ms Xie Ping who applies a scribed line that references the junction point where the depth of the fillet weld is required to satisfy. The Caltrans QA Inspector observed that Ms. Xie Ping initially attempted to utilize unaided visual means for performing her evaluation of the fillet weld soundness tests. Ms Xie Ping requested to use the Caltrans QA Inspector's 7x eye magnifier. The Caltrans QA Inspector allowed Ms. Xie Ping to utilize the 7x eye magnifier at her own discretion. Ms. Xie Ping concluded her interpretation of the fillet weld soundness tests and voiced to Mr. Lu Jian Hua in Chinese language that they are

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acceptable. The Caltrans QA Inspector performed an examination of the presented fillet weld soundness tests utilizing Lupe 7x eye magnifier. The Caltrans QA Inspector observed and brought it to the attention of Lu Jian Hua and Mr. Warren Buehler that the fillet weld soundness specimens contain slag inclusions in an area of the specimen where the fillet weld root does not penetrate to the required root junction of the two plates joined. Mr. Lu Jian Hua and Mr. Warren Buehler utilized the 7x eye magnifier to observe the specimens and concurred with the Caltrans QA Inspector. Ms. Xie Ping also observed the specimens again and also concurred that the fillet weld soundness tests do not comply with the requirements of AWS D1.5 (2002). The Caltrans QA Inspector was presented with ZPMC, Mechanics Test Department records for this fillet weld soundness test that reflects that the test specimens are in non-compliance due to lack of fusion. Included within a 6031 report for this date is a digital picture of a fillet weld soundness specimen as it appears utilizing a Lupe 7x magnifier

Summary of Conversations:

As identified within the contents of this report.

Observed welding,testing or results: is in general conformance with the contract requirements.
is not in conformance with the contract requirements.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Cuellar,Robert	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer
